

Remarks

Claims 11-26 are pending in this application. Claims 1 through 10, 27, and 28 have been cancelled without prejudice.

Applicant notes that the International Search Report from PCT/EP2004/007546 and German Search Report from German Application No. 10332907.2-16 listed in the information disclosure submitted January 18, 2006 were not initialed on Form PTO-1449 included with the Office Action. Applicant respectfully requests a Form PTO-1449 including Examiner's initials on all references submitted in the information disclosure submitted January 18, 2006.

The Office Action objects to the drawings. The Office Action asserts that Figure 1 should be designated by a legend such as –Prior Art–. Figure 1 is amended to include the legend “Prior Art”.

The Office Action asserts that Figures 1 through 11 contain lines, numbers, and characters that are not durable, clean, black, sufficiently dense and dark, and uniformly thick and well-defined. Figures 1 through 11 are amended to contain lines, numbers, and characters that are durable, clean, black, sufficiently dense and dark, and uniformly thick and well-defined.

The Office Action asserts that the drawings must show every feature of the invention specified in the claims and the central ring of the retarder must be shown. Figure 6 is amended to add reference numeral “2.1” and show the central ring. Support for amended Figure 6 is found at least in claim 1 that provides, in part, that the central ring corresponding to the part of the working chamber of the retarder that is arranged in the flow direction of the coolant downstream of a coolant-carrying retarder inlet region and paragraph [0048]. No new matter has been added.

Reconsideration and withdrawal of the objections to the drawings are respectfully requested.

Claim 13 stands rejected under 35 U.S.C. §112, first paragraph. The Office Action asserts that the specification does not disclose the range of reduction in flow resistance between the first flow resistance and the second flow resistance. The specification is amended to provide the range of reduction in flow resistance between the first flow resistance and the second flow resistance as provided by claim 13. Support for the amendment to the specification is found at least in original claim 2. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 11, 13, 14, 18, and 27 stand rejected under 35 U.S.C. §112, second paragraph. Claim 27 is canceled rendering the rejection thereto moot. The Office Action asserts that the term "reversing valve" in claims 11, 14, 18, and 27 is used by the claim to mean "a valve used to switch to bypass or alternative cooling channel", while the accepted meaning is "a valve used to reverse the direction of flow" and that the term reversing valve is indefinite because the specification does not clearly redefine the term. Applicant respectfully requests the basis for the assertion that the accepted meaning of reversing valve is "a valve used to reverse the direction of flow". Applicant notes that claims 11, 13, 14, and 18 are directed to a coolant circuit of a motor vehicle having a coolant flowing therethrough and the motor vehicle having an engine rather than heat pumps as provided by the Office Action. In addition, paragraph [0029] is amended to "...a switching or reversing valve 3..." to clarify the translation from German to English.

The Office Action further asserts that the term "approximately" is a relative term which renders the claim indefinite. Claim 13 is amended to delete the term approximately.

The Office Action also asserts that "the radial outer opening surface", "the outside", and "the inside" in the last three lines of claim 18 has insufficient antecedent basis. Claim 18 is amended to provide proper antecedent basis.

The Office Action asserts that claim 27 is rendered indefinite because it is unclear whether there are two separate engines being provided or if it is in reference to the same engine. Claim 27 is canceled rendering the rejection thereto moot.

Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 11-17 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,996,762 to Edelmann et al. ("Edelmann"). Claim 27 is canceled rendering the rejection thereto moot. However, the actual rejection uses U.S. Patent No. 3,185,261 to Campbell et al. and U.S. Patent No. 3,367,461 to Nagel to point out features clearly missing in Edelmann. Thus, the rejection is actually a combination of all three references.

Independent claim 11 provides, in part, that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit.

The Office Action concedes that Edelmann does not distinctly disclose the flow resistance being lower when the retarder is connected to the cooling circuit. The Office Action asserts that it is known in the art that retarders also act as a pump when it is being driven and connected to the cooling circuit and that U.S. Patent No. 3,185,261 to Campbell et al ("Campbell") discloses in column 2, lines 7 through 10 that it is "well known" that retarders when driven also act as a pump and circulates fluid in a closed circuit. Campbell provides "[t]he retarder when driven also acts as a pump and circulates fluid in a closed circuit through a heat exchanger 29 (emphasis added)..." Merely providing that the retarder when driven also acts as a pump fails to disclose or suggest that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11. Further, the retarder of Campbell merely

provides acting as a pump and circulating fluid in a closed circuit through a heat exchanger 29 that is downstream of retarder that indicated by reference numeral 16, and fails to disclose or suggest that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11.

The Office Action further asserts that U.S. Patent No. 3,367,461 to Nagel ("Nagel") discloses the retarder acting "somewhat as a pump" in column 5, line 25. Again, merely providing that the rotor and stator are such that they will act somewhat as a pump fails to disclose or suggest that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11. Thus, neither Edelmann nor Nagel, or the combination of same which appears to be the rejection, discloses or suggests that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11.

Claims 12 through 17 depend from claim 11, and are patentable for at least the reasons set forth above for claim 11.

Applicant respectfully requests reconsideration and withdrawal of the rejections to claims 11 through 17.

Claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Edelmann in view of U.S. Patent No. 3,721,265 to Hoffland ("Hoffland").

Dependent claim 18 provides that the inlet hole has a construction that is conically tapering proceeding radially from the outside surface of the cylindrical valve piston toward an inside of the cylindrical valve piston, and that the inlet hole has a radial outer opening surface has a diameter that is enlarged in such a way that there is a constant flow-carrying connection to the inlet, regardless of the alignment of the outlet hole with an outlet.

As discussed above Edelmann fails to disclose or suggest that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11.

In addition, Hoffland also fails to disclose or suggest that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11. Thus, the combination of both still fail to disclose this feature.

Thus, dependent claim 18, that depends from claim 11, is patentable for at least the reasons described above for claim 11.

Further, the Office Action concedes that Edelmann fails to disclose the changeover valve as being a cylindrical valve.

The Office Action asserts that Hoffland discloses a three-way valve including a valve body and a plug for permitting transfer of fluids between a main port to either or both of the side ports and includes a conically tapered portion. Hoffland provides that "[t]he present invention is concerned with the generally T-shaped or three-legged passageway 40 which extends in a horizontal plane through the plug to selectively communicate with the ports 33 in the valve seat and, hence, the bores 24 in the connecting nozzles 16, 17

and 18." (col. 3, lines 42-47). Thus, the plug of Hoffland provides a three-legged passageway 40, central passage 42 and two adjacent passages 46 and 47, to selectively communicate with the ports. As clearly shown in Figures 3-6, none of central passage 42 or two adjacent passages 46 and 47 has an inlet hole has a construction that is conically tapering proceeding radially from the outside surface of the cylindrical valve piston toward an inside of the cylindrical valve piston, let alone that has a diameter that is enlarged in such a way that there is a constant flow-carrying connection to the inlet, regardless of the alignment of the outlet hole with an outlet, as recited by claim 18.

Thus, the combination of Edelmann and Hoffland fail to disclose or suggest the features of claim 18. Applicant respectfully requests reconsideration and withdrawal of the rejection to claim 18.

Claims 19-26 and 28 are rejected under 35 U.S.C. §103(a) as being unpatentable over Edelmann in view of U.S. Patent No. 5,996,762 to Nagel ("Nagel"). Claim 28 is canceled rendering the rejection thereto moot.

As discussed above, neither Edelmann nor Nagel, and thus the combination of both, disclose or suggest that the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit, as recited by claim 11.

Claims 19-26 depend from independent claim 11, and are patentable for at least the reasons discussed above for claim 11.

Claim 27 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 11. Claim 27 is canceled rendering the rejection thereto moot.

In view of the above, Applicants respectfully submit that the pending claims in this application are patentably distinct from the cited art. Accordingly, Applicants respectfully request favorable consideration and that this application be passed to allowance.

Respectfully submitted,

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